Daily Diary Report by Bid Item

Contract No.: **04-0120F4**

Diary #: **502** **Const Calendar Day:** 886 **Date:** **11-Feb-2012** **Saturday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Intermittent
Shift Hours: 05:00 am 01:30 pm **Break:** 00:30 **Over Time:** 08:00
Federal ID:
Location:
Reviewer: **Schmitt, Alex** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 40 - 50 **12 PM** 50 - 60 **4PM** 60 - 70
Precipitation 0.00" **Condition** Partly overcast

Working Day ☐ If no, explain:

Diary: Dispute ☐

Work description.

- The Alta Vista consultants were not scheduled to work today:
Dave Garrett (survey party chief) = off
Chris Ferrucci (instrumentman) = off
Erol Schaller (rodman) = off

- John Lyons, Sami Daouk, Damon Brown and myself checked the out to out distance for the cable strands today as my measurements are tabulated below. John and Sami were primarily responsible for the sidespans and the west-loop. Damon and I were responsible for checking the mainspans and the recheck on cable strands 29, 33, and 34 on the South Sidespan.

When all of the measurements were completed, I proceeded to meet with ABF engineer Scott Yeager at the top of the tower to discuss the measurements taken today. The discussion between us began 6:45am with the mainspan completed and while South Sidespan measurements were being taken by both ABF surveyors and Caltrans engineers. The ABF cable sag adjustment acceptance form was signed by both myself and Scott Yeager at 7:45am. The reason the form wasn't signed at 7:00am was due to the cable strands at the South Sidespan not being free-hanging at the time of the initial measurements. The only cable strands that were found to be free hanging at the west loop was number 33 on the north end.

I took all of the measurements today on the mainspan with the Maletic calipers (Yellow #1) to take the out to out measurements of the cable strands. Damon assisted me with taking the measurements and record data.

Ambient temperatures were taken with the red temperature gauge. Wind speeds were obtained from weather.com at the time of the measurements. For the steel temperature, measurements were taken with the infrared temperature gun which was used for the first time today.

The official sunrise time per weather.com for San Francisco today was at 7:03am. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// North Mainspan //
Time = 5:15am
Ambient Temperature = 51F
Condition = Cloudy
Wind = WNW @ 13mph
ABF Surveyor(s) = Terry Denis and James Allen
Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand	O-O (#1Y) CT / ABF (mm)	Theor(mm) / CT Delta (mm)	Steel Temperature (F)
1	Baseline or Zero	75 / 0	48
27	499 (-61) = 438 / 434	443 / -5	41
28	474, 475 - Ave = 475 / 478	500 / -25	41
29	200 (-114) = 86 / 86	111 / -25	47
30	360 (-61) = 299 / 312	168 / +131	44
31	446 (-61) = 385 / 382	225 / +160	45

Comments: All cable strands were free-hanging at the time of measurement. It should be noted that ABF surveyors impeded the time it took us to measure at this location. The reason being is that they have priority to take their measurements first. However both ABF and Caltrans worked together at this location and compared numbers for the North and South Mainspans.

// South Mainspan //
Time = 6:01am
Ambient Temperature = 50F
Condition = Cloudy
Wind = NW @ 12mph
ABF Surveyor(s) = Terry Denis and James Allen
Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand	O-O (#1Y) CT / ABF (mm)	Theor(mm) / CT Delta (mm)	Steel Temperature (F)
1	Baseline or Zero	76 / 0	48
24	270, 272 - Ave = 271 / 270	275 / -4	49
26+	494, 495 - Ave = 495 (-114) = 381 / 382	392 / -11	43
29	79, 82 - Ave = 81 / 83	106 / -24	46
30	321, 321 - Ave = 321 / 318	165 / +156	42
31	373, 372 - Ave = 373 / 369	224 / +149	42
32	428, 425 - Ave = 427 / 423	282 / +145	41

Comments: All cable strands were free-hanging at the time of measurement. The ABF surveyors started on the south mainspan prior to me and Damon arriving on the jobsite and North Mainspan. Therefore the time it took to measure the required and preliminary cable strands was 29 minutes opposed to 45 minutes at the North Mainspan. The + denotes that the Maletic gauge had to be inverted to measure the cable strand. The ( ) denotes that a block was used with the block width or height dimension in millimeters.

- All measurements on the mainspan were completed by 6:30am. Since I was responsible for exchanging information and approving the sag measurements I made my way up to the tower to abide by the 7:00am deadline. I arrived to meet with ABF engineer Scott Yeager at 6:45am with measurements being taken at the South Sidespan by ABF surveyors and Caltrans engineers. All numbers for the mainspan and sidespans were reviewed by 7:00am except for cable strands 33, and 34 at the South Sidespan. It should be also noted that ABF was late measuring the west loop, partially due to the fact that cable strand 33 (south only) and 34 were not free-hanging. While reviewing numbers it was discovered that John and Sami didn't measure cable strands 33 and 34 at the South Sidespan. Since the ABF numbers were within tolerance I proceeded to take the measurements to approve these cable strands.

// South Side Span //
Time = 7:20am
Ambient Temperature = 50F
Condition = Cloudy with the sun risen
Wind = WNW @ 10mph
ABF Surveyor(s) = Not present
Caltrans Engineer(s) = Matt Bruce and Damon Brown

Cable Strand	O-O (#1Y) CT (mm)	Theor(mm) / CT Delta (mm)	Steel Temperature (F)

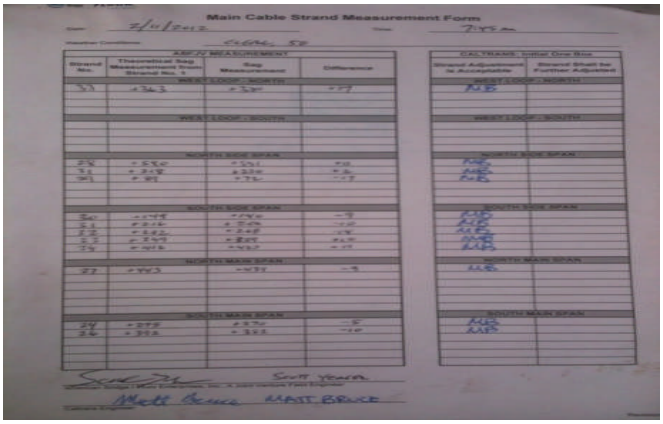
1	Baseline or Zero	78 / 0	50
29	161 (-61) = 100	82 / -18	49
33	405 (-61) = 344	349 / -5	48
34	483 (-61) = 422	416 / +6	48

Comments: All cable strands were free-hanging at the time of measurement, which was completed by 7:30am. The ( ) denotes that a block was used with the block width or height dimension in millimeters.

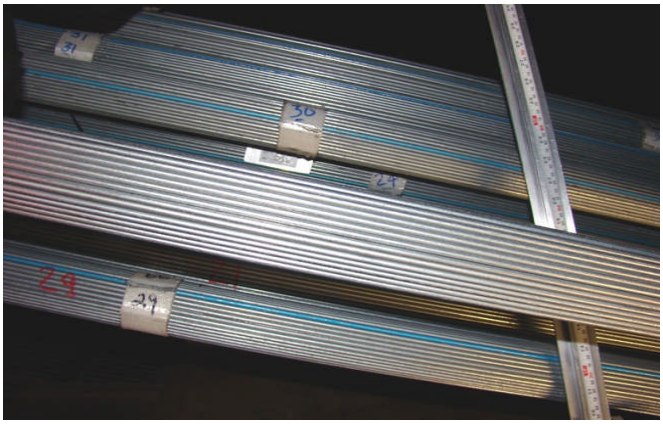
- John reported to me that approximately at 7:18am while taking measurements at the west loop some debris was hurtled onto the W2 working platform by MCM while stripping falsework. The estimated 2"x10" flew in between the working platforms for cable hauling and the W2 working platform railing near the North West-loop. The lumber reportedly came within 8' of Sami and John. An ABF ironworker threw the lumber off of the working platform prior to any photos being taken. Also present was Damon Brown and ABF engineer Levi Gatsos. See John, Sami, and Damon's diaries for more details on this incident. When I found out about this information at 9:50am I called Gil Klebanov and Mohan Ayadurai on the YBITS project to inform them of this incident.

- Worked on compiling my measurements and reviewing John's daily cable strand sag adjustment sheets and left them on (submitted) Alex Schmitt's desk.
- Continued to search for a replacement laser for the Maletic gauge (#1Y).
- Wrote todays diary and other outstanding diaries from previous days on the cable work.

Attachment



ABF cable strand sag adjustment acceptance form signed by me and ABF engineer Scott Yeager early this morning.



Configuration of cable strands while measuring number 24 at the South Mainspan.